

# Aluminium alloy EN AB-47000

Chemical designation:

EN AB-ALSi12(Cu)

Swedish standard:

Type 4260, [1], [2]

## Chemical composition<sup>1</sup>:

	Min %	Max %
Si	10,5	13,5
Fe	-	0,7
Cu	-	0,9
Mn	0,05	0,55
Mg	-	0,35
Cr	-	0,10
Ni	-	0,30
Zn	-	0,55
Pb	-	0,094
Sn	-	0,10
Ti	-	0,15

Others each max 0,05%  
and total max 0,25%

## General description of properties:

Eutectic alloy with excellent castability properties, excellent fluidity and high resistance to hot tearing. Good machinability and excellent weldability.

## Suitable applications:

For complicated thin-wall, pressure-tight castings subjected to fatigue loading, but with corrosion resistance and toughness limitations.

## Heat treatment:

Not age hardenable

## Casting characteristics, S-Sand cast, K-Chill cast<sup>2</sup>:

Solidification range, °C, about	Casting temperature °C, about	Fluidity	Resistance to hot tearing	Shrinkage %, about	Pressure tightness
580-530	680-750	Excellent	Excellent	S: 1-1,1 K: 0,8-1	Excellent

## Mechanical properties of separately untreated cast test bars<sup>2</sup>:

Tensile strength, R <sub>m</sub> , MPa, min.	Proof stress R <sub>p0,2</sub> , MPa, min.	Elongation A <sub>50</sub> , %, min.	Brinell hardness HBS, min.
S: 150 K: 170	S: 80 K: 90	S: 1 K: 2	S: 50 K: 55

## Mechanical and physical properties<sup>2</sup>:

Density kg/dm <sup>3</sup>	Strength	Machinability	Weldability	Resistance to corrosion
2,65	Poor	Satisfact.	Excellent	Satisfact.
Decorative anodizing	Ability to be polished	Linear thermal expansion 293-373°K, °K <sup>-1</sup>	Electrical conductivity MS/m	Thermal conductivity W/m°K
Not recom.	Satisfact.	20 x 10 <sup>-6</sup>	16 – 22	130 - 150